

DIVISION F2

DETAILED REQUIREMENTS

- b. Platen Superheat Extension: Contractor shall design, fabricate, and install additional platen superheat surface on both Unit 1 and Unit 2, to maximize both reheat and superheat temperature support while maintaining boiler efficiency. The base design case shall consist of an 8 foot extension of the platen superheater element loops.

Unless otherwise specified or recommended by the bidder, the extensions shall be installed at a single cut line located 18 inches above the upper, inner loop tube of each platen element. This will result in an approximate vertical section length on the outer loop tube of each element of 13.5 feet or an actual element extension of 8 feet. The design shall include appropriate modifications to the steam cooled alignment tubes, additional alignment castings, and all other provisions for ensuring reliable long-term operation of the platen superheaters.

The platen extension design shall include a complete assessment of the adequacy of the existing structural support systems, metallurgy, seismic, environmental impacts, boiler efficiency, and other operational impacts of the associated boiler modifications.

Contractor shall perform a specific assessment of the adequacy of the present sootblowing system and provide recommendations for sootblowing system enhancements where advisable. Assessment of, and provisions for, quantifying and minimizing tube wastage and fouling concerns shall be included within the detailed design.

- c. Overfire Air System: Contractor shall design, fabricate, and install an OFA system on Unit 1 and Unit 2 capable of reducing overall NO_x by 15 percent on each unit allowing for normal operation at or below 0.40 lbs/MMBTU NO_x. (See Performance Guarantees, Division F2, Article 11).

Within the design phase of the Work, Contractor shall review all operational impacts on associated equipment and systems such as fans, burners, and dampers. Anticipated operating modes, recommended operating methods, and allowable equipment limits shall be clearly defined for the affected systems.

Contractor shall provide a complete set of drawings for the OFA system modifications including details of the type, quantity, and manner of interface for each existing system or piece of equipment affected by the Contract modifications. Drawings shall include item-by-item detail of instrumentation, piping, power, and any other inter-ties with, or connections to, plant systems.

This Work includes all access, disassembly, insulation removal, scaffolding, waterwall window construction, OFA port installation, duct installation, air balancing hardware installation, and insulation/lagging replacement. The OFA system shall be designed and constructed with standard sized components and assemblies. This is to allow for retrofit of additional OFA system components or